

REMARKS

Non-elected Claims 1, 3, 5, 11, 13 and 15 – 17 have been withdrawn and new Claims 20 – 26 have been added. Accordingly, Claims 2, 4, 6, 7, 8, 9, 10, 12, 14, 18 – 26 are pending in the application. In the Office Action Dated March 9, 2005 all pending claims were rejected in view of the prior art. In response to this rejection, Applicants have amended Claims 2, 4, 6, 12, 14, 18 and 19 and have added the new claims.

In particular, Claims 2, 4, 6, 7, 8, 18 and 19 were rejected for being anticipated by USPN. 4,471,976 to Giulie (hereinafter Giulie). This rejection is respectfully traversed. One aspect of the present invention is directed to an elongated binder strip constructed to have reduced transverse curl, that is, curl in a direction normal to the longitudinal axis. Such transverse curl can seriously interfere with the operation of some conventional type binding machines. It has been found that this tendency to curl is reduced by mechanically deforming the adhesive of the binder strip after the adhesive has been disposed on the binder strip substrate and permitted to at least partially cool.

The Giulie reference discloses a folder 21 (Fig. 1) having a strip 12 secured to the interior of the folder for holding sheets in the folder. An adhesive 14 is disposed on a small part of the strip having peaks 15 (Fig. 3) and valleys 17 which are said to be for centering the sheets (Col. 2, line 34). Creases or scores 15 are formed in the underside of the adhesive to assist in folding the strip 12 at the desired location (Col. 2, line 40).

It appears to be the Examiner's position that the valleys 17 of Giulie met the limitations of rejected claims. It is important to note that Giulie is not concerned at all with reducing transverse curl to ensure proper operation with automatic binding machines. A user manually wraps strip 12 around the edge of a stack 25 and applies heat from a heater source 26 as shown in Fig. 3. The presence or absence of transverse curl is irrelevant due to the manner in which strip 12 is manually applied to the stack. As previously noted, the creases 15 and valleys 17 formed in the adhesive assist in aligning the strip to the edge of the stack and assist in folding the strip and have nothing to do with curl reduction in a binder strip.

The pending original claims have all been amended to recite that the claimed binder strips have an elongated substrate, with the adhesive being disposed substantially the full length of the substrate, as is the case with conventional binder strips. This feature

distinguishes over the strip 12 of Giulie which is clearly not a conventional binder strip having adhesive disposed along substantially the full length of the strip. On the contrary, the Giulie adhesive 14 is disposed only along a small fraction of the length of strip 12. Thus, Giulie does not anticipate the rejected claims.

Further, there is no motivation to somehow modify Giulie, based upon the teachings of Giulie or the other cited prior art, to somehow arrive at the claimed binder strip. The valleys 17 or creases 15 of Giulie are provided with reasons unrelated to the elimination of transverse curl. Still further, the presence of transverse curl in the Giulie structure would not adversely affect the operation of the Giulie structure.

Claims 2, 4, 6, 7, 8, 9, 12, 14, 18 and 19 were also rejected for being anticipated by USPN. 4,800,110 to DuCorday (hereinafter DuCorday). DuCorday shows a binding apparatus which includes a plurality of separate temperature activated adhesive beads 28, 30 and 32. The adhesive beads are separated from one another by grooves 34 and 36. According to the Examiner, these grooves provide for the claimed reduction in transverse curl. This rejection is also respectfully traversed.

It is apparent that the grooves of DuCorday are provided for reasons totally unrelated to curl reduction. In fact, as explained in detail in DuCorday, the grooves permit a user to manually peel away segments of adhesive to adjust the width of the adhesive to the width of the stack of sheets to be bound (Col. 3, lines 5 – 10 and Col 5, lines 41 – 51). All of the rejected claims recite the presence of an elongated substrate, with heat-activated adhesive being disposed along substantially the full length of the substrate as is the case with conventional binder strips of the type disclosed in the subject application. DuCorday does not disclose a conventional binder strip, that is, a strip having an elongated substrate with the claimed overlying adhesive extending along the length of the substrate. Instead, DuCorday discloses a cover 12 which is not elongated and which need not operate with typical conventional binding machines such as disclosed in USPN. 5,052,873 as recited in the present application at page 2. Thus, DuCorday clearly does not anticipate the rejected claims. Further, there would be no motivation to provide removable adhesive segments as taught by DuCorday, to a conventional elongated binder strip, particularly for the purpose of curl reduction. Thus, DuCorday also does not render the claimed invention obvious.

Claim 10 was also rejected for being obvious over either Giulie or DuCorday in view of USPN. 4,247,273 to Pogrzeba et al (hereinafter Pogrzeba et al). According to the

Examiner, Pogrzeba et al discloses “that either grooves or indents (punctures as described above) can be formed in a layer in order to prevent a “winged effect” (i.e. to reduce curl)”. Office Action at page 3. Applicants submit that this is a misinterpretation of the teachings of Pogrzeba et al.

The objective of Pogrzeba et al is to treat a web of material (not a binder strip) so that the material can be successfully wound on a large roll. One of the problems addressed is the problem where “the layers of the winding might shift or shoot out axially relative to each other during transportation”. (Col 1, lines 13 – 15). The general solution to this problem was to thicken the edges of the web by stamping the web near the web edges. According to Pogrzeba et al, this prior art method of thickening the web by stamping causes the web to be “subject to corrugation or a “winged effect” along the edges”. (Col 1, line 49-50). The Pogrzeba et al solution is to provide the desired thickening while avoiding the “winged effect” using ultrasound. Thus, the “winged effect” is the undesired consequence of treating the edge of a web to a stamping treatment, with such stamping being the cause of the problem and not a technique for eliminating or reducing transverse curl. The teachings of Pogrzeba et al relate to thickening of the edge of the web of material, such material having no substrate, using ultrasound. There is nothing whatsoever in Pogrzeba et al relating to reduction of transverse curl in a binder strip, just as there is nothing relating to this problem in the other cited art.

New Claim 20 is directed to an adhesive binding member having an “elongated region for receiving an adhesive ... extending substantially the full length of the edge of the stack to be bound. Claim 20 goes on to recite that “subsequent to the cooling [of the adhesive] and prior to application of the binder member to a stack” there is “mechanically deforming a surface of the layer of adhesive to a degree such that the curling of the binder member along the transverse line is substantially reduced”. This claim is also believed to be allowable over the cited prior art. For example, Giulie discloses an adhesive 14 having creases or scores 15, but such adhesive extends only along a small portion of the edge of the stack 25, as can best be seen in Fig. 2. Further, it would not be possible or even desirable to change the length of adhesive 14 of Giulie to meet the language of Claim 20 given the dimension of the substrate supporting the adhesive and the function of the adhesive.

New independent Claim 20 is also patentable over DuCorday which, as noted above, discloses beads of adhesive 28, 30 and 32 which appear, particularly in view of the depth of

the grooves, very likely to have been created at the time the molten adhesive was applied to the spine section 16. Thus, it is likely that the grooves were formed either using an appropriately sized die through which the adhesive is applied or formed using a knife while the applied adhesive is still molten. In any event, DuCorday contains no teaching, and actually suggests to the contrary, that the deep grooves were created after the adhesive had cooled using a scoring knife or the like.

As indicated in the Fig. 7 flow chart, it is important aspect of the present invention that the mechanical deformation take place after the adhesive has cooled. As noted above, new Claim 20 recites that the mechanical deformation take place after adhesive cooling, with this believed to provide the best approach to curl reduction. In that DuCorday provides no teaching to form the grooves after cooling and in that this reference teaches providing grooves for reasons totally unrelated to curl reduction, it is submitted that Claim 20 is patentable over this reference. Further, for substantially the same reasons set forth above regarding Claim 2 and other claims, it is submitted that Pogrzeba et al does nothing to render Claim 20 unpatentable.

New independent Claim 22 is also directed to an adhesive binding member having an adhesive that is disposed over an elongated region which extends along substantially all of the edge of the stack after binding. Further, the adhesive surface contains mechanical deformations that are formed after the adhesive has cooled. Thus, for at least substantially the same reasons set forth above regarding Claim 20, it is submitted that Claim 22 is patentable. The same can be said for Claims 21 and 23 – 26 which depend, either directly or indirectly, from allowable independent claims and add patentably significant limitations to those claims.

In conclusion, all pending claims are believed to be patentable over the cited prior art. Accordingly, an early allowance is respectfully requested.

Respectfully submitted,

GIRARD & EQUITZ LLP

Dated: 6/16/05

By: 

Philip A. Girard  
Reg. No.28,848

Attorneys for Applicant(s)

Attorney Docket No. PRKR-4500